



Department of consumer and corporate affairs / Ministère de la consommation et des corporations



STANDARDS BRANCH - DIRECTION DES NORMES

NOTICE OF APPROVAL

G-90

OTTAWA June 28, 1972

VICKERY-SIMMS, INCORPORATED
TYPES "D-600" and "DSB" ORIFICE FITTINGS
APPARATUS

<u>Types</u>	<u>Nominal Size</u>	<u>Pressure Rating</u>
D-600	2, 3, 4 and 6 inch	150, 300, 400 and 600 ASA
DSB	2, 3, 4, 6, 8, 10, 12*, 16, 20 and 24 inch	125, 150, 250, 300 and 600 ASA

* This size is not approved with orifice plate thickness of 0.125 inches (Ref. A.G.A. Report No. 3, Revised 1969, page 4).

Description

Both types are of the deadline design requiring the complete release of line pressure when an orifice plate is to be changed.

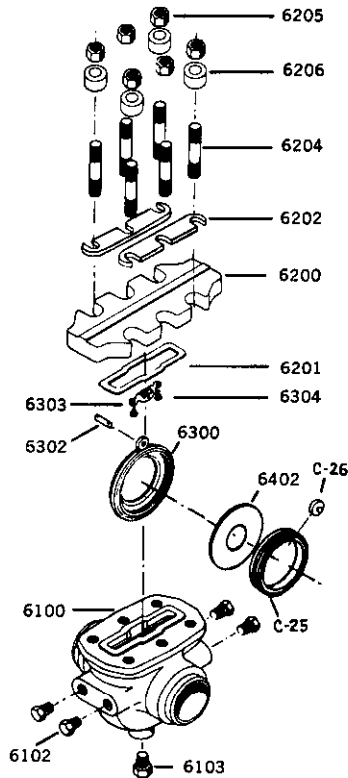
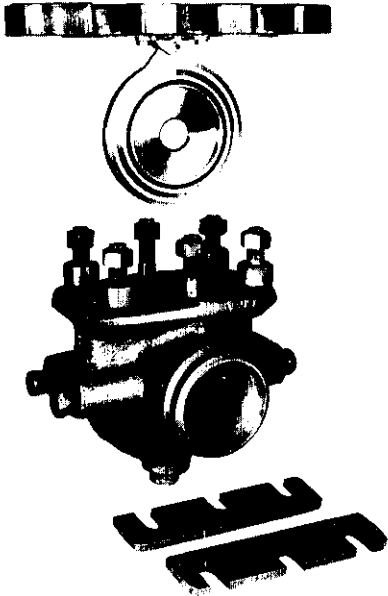
Type "D-600" is briefly described on the attached sheet. Exploded views of the fittings show details of assembly.

Type "DSB" is of flanged design with hinged orifice fitting cover flange. For nominal pipe sizes of 20 inches and larger the orifice fitting cover flange is operated by a worm gear arrangement. A jack-screw is provided to break the cover joint free.

The fittings are made of "RESISTITE" Hi Test iron or cast steel depending on pressure rating.

Orifice plates and trim are stainless steel.

The fittings are symmetrically designed to permit the flow in either direction.



COMMERCIAL TYPE D-600 ORIFICE FITTINGS

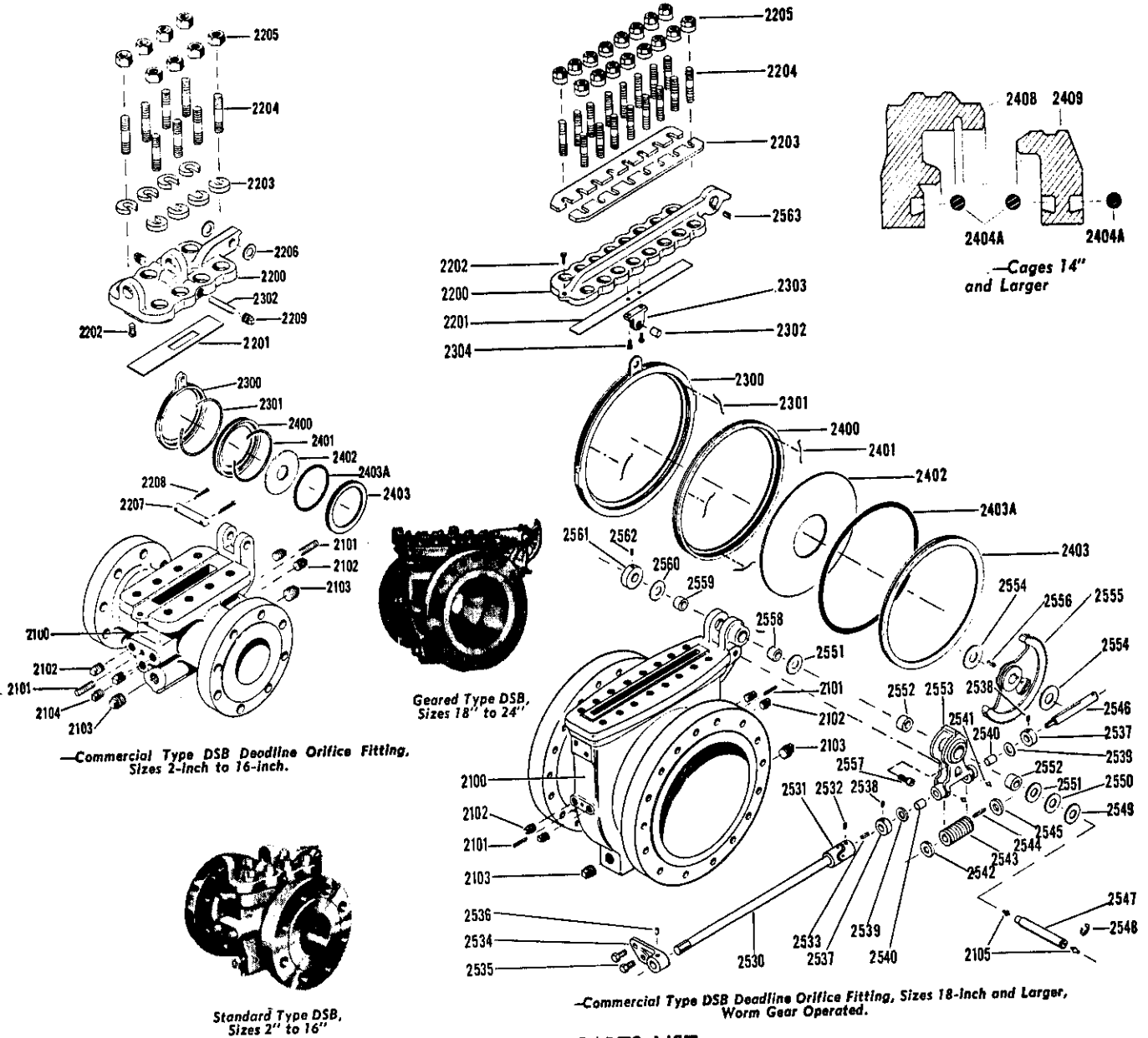
Commercial Type D-600 Orifice Fittings are designed to conform with Schedule 40 pipe sizes 2" to 6". ASA Pressure-Temperature Ratings can be used up to and including 600 lb. ASA -1440# CWP. The D-600 features the basic orifice fitting requirements: a compact body and quickly detachable cover and orifice cage assembly. The cover flange is secured by stud bolts and slotted bars. A few turns of the nuts allow removal of the slotted bars and permits removing the cover and cage assembly from the line. Cover and cage are symmetrical and may be replaced in the body without regard to direction of flow. The hinged carrier assures self-centering concentric with flow bore.

TYPE D-600 PARTS LIST

6100	TYPE D-600 ORIFICE FITTING BODY	
6102	METERING TAP PIPE PLUGS	
6103	DRAIN AND CLEAN-OUT PLUG	
6200	ORIFICE FITTING COVER FLANGE	
*6201	COVER FLANGE GASKET	
6202	SLOTTED BARS	
6204	COVER FLANGE ALLOY STUDS	
6205	COVER FLANGE NUTS	
6206	CENTRALIZER BUSHINGS	
6300E	ORIFICE PLATE CARRIER	
6302	CARRIER HINGE PIN	
6303	S. S. CARRIER BRACKET	
6304	S. S. HEX HEAD SCREWS	
6402	ORIFICE PLATE	
*C-25	PLATE SEALING UNIT	* RECOMMENDED
*C-26	ALIGNMENT ROLLER	SPARE PARTS

TYPE D-600 Orifice Fitting with cover and orifice cage assembly removed. Standard Type D-600 is furnished with welding ends. On special order, it can be furnished with female threaded ends, flanged ends, or Uniflange combinations.

COMMERCIAL TYPE DSB ORIFICE FITTINGS—ILLUSTRATED PARTS LIST



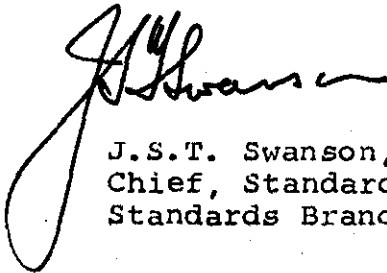
- 2100 Type DSB Orifice Fitting Body
- 2101 Cage Carrier Centering Screws (fixed)
- 2102 Pressure Metering Tap Pipe Plugs
- 2103 Drain & Clean-out Plugs
- 2104 Auxiliary Drain or Bleeder Plug
- 2105 Lubricant Fittings
- 2200 Orifice Fitting Cover Flange
- 2201 Cover Flange Gasket
- 2202 Cover Flange Jack Screw
- 2203 Slotted Washers or Washer Bars
- 2204 Cover Flange Alloy Studs
- 2206 Cover Flange Special Nuts
- 2206 Hinge Spacing Washers
- 2207 Cover Hinge Pin
- 2208 Cover Hinge Pin Cotter Pins
- 2209 Carrier Hinge Sealing Plugs
- 2300 Orifice Cage Carrier Unit
- 2301 Carrier Snap Spring (Large sizes 2 springs fixed)
- 2302 Carrier Hinge Pin
- 2303 Carrier Hinge Bracket
- 2304 Hinge Bracket Screws

- ### TYPE DSB PARTS LIST
- 2400 Orifice Cage Outer Cage Ring
 - 2401 Cage Snap Spring (Large sizes 3 springs fixed)
 - 2402 Orifice Disc
 - 2403 Inner Cage Ring
 - 2403A Cage "O" Ring Packing
 - 2404A Cage Insert O-Rings
 - 2408 Outer Cage, O-Ring Insert Type
 - 2409 Inner Cage, O-Ring Insert Type
 - 2530 Cover Elevator Shaft
 - 2531 Shaft Universal Joint
 - 2532 Universal Joint Set Screw
 - 2533 Universal Joint Key
 - 2534 Shaft Support Bracket
 - 2535 Support Bracket Screws
 - 2536 Bracket Lubricant Fitting
 - 2537 Worm Shaft Lock Collar
 - 2538 Shaft Collar Set Screw
 - 2539 Worm Shaft Washer (as req'd.)
 - 2540 Worm Shaft Bearing (as req'd.)*
 - 2541 Gear Housing Lubricant Fittings
 - 2542 Worm Radial-Thrust Bearing (as req'd.)*
 - 2543 Elevator Worm
 - 2544 Worm Key (fixed)
 - 2545 Worm Thrust Bearing (as req'd.)*
 - 2546 Worm Shaft
 - 2547 Cover Hinge Shaft
 - 2548 Hinge Retainer Ring
 - 2549 Retainer Ring Washer
 - 2550 Bearing Seal Ring (as req'd.)*
 - 2551 Bearing Seal (as req'd.)
 - 2552 Gear Radial Bearing (as req'd.)*
 - 2553 Gear Housing
 - 2554 Gear Thrust Washer (as req'd.)
 - 2555 Elevator Gear
 - 2556 Elevator Gear Key (fixed)
 - 2557 Gear Housing Cap Screw
 - 2558 Hinge Bearing—Right
 - 2559 Hinge Bearing—Left
 - 2560 Hinge Lock Collar Washer
 - 2561 Hinge Lock Collar
 - 2562 Hinge Collar Set Screw
 - 2563 Cover Hinge Key (fixed)

- NOTE: 1. The manufacturer of these orifice fittings advertizes the type DSB fittings in other sizes than listed in this approval, however, only those listed herein are approved for billing in trade.
2. All orifice fittings shall conform to the requirement of A.G.A. Report No. 3.

Approval granted to:

Vickery-Simms Incorporated
Arlington, Texas.



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Chief, Standards Laboratory,
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Chief, Electricity & Gas Division,
Standards Branch.

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